

Safe Home in Port? Shipping Safety within the Port of Liverpool

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Introduction: Sources and Methods

The issue of safety at sea has long exercised the minds of those who were concerned by what they perceived as irresponsible shipowners who sent their men to sea in dangerous vessels or with dangerous cargoes. Samuel Plimsoll is just the most famous among many who sought to bring to the shipping industry the sort of controls which already existed in many shore-based industries, and a number of Parliamentary enquiries investigated these questions in the nineteenth century.' Maritime historians have taken a good deal of interest in the answers, at both scholarly and more popular levels. Further down the scale comes the literature of spectacular shipwrecks, the worst examples of which are not merely voyeuristic or ghoulish but positively necrophiliac. What author of third-rate novels could improve on the real-life storyline of the *Titanic*? It raised issues of class and gender, of social, financial and technological hubris, and of heroism and neglect.'

The common perception is that such tragic events invariably unfolded either in mid-ocean or on storm-battered rocky shores and in terms of bulk fatalities that perception is obviously correct. Its corollary, that one is safe in port, is not merely widely accepted but has extended to the use of the port as a metaphor for Heaven, with Jesus as celestial pilot and the Holy Trinity as the port authority.' This paper makes a rapid survey of the records of the Mersey Docks & Harbour Board (MD&HB), which shows that there obviously were accidents to ships when they were supposedly safe in port, that such accidents were numerous and that some of them were serious. It also looks for reasons.

There is no single set of documents, much less figures, on which one can draw for accidents in port. From 1843 onwards the reports of the Acting Conservator of the Mersey were published, and usually provide us with the number of vessels reported as "casualties" by the Water Bailiff. Unfortunately, the format varies a great deal until 1879, when it was more or less standardised. For just three years, 1873-1875, the Water Bailiff's return was

published in full. His responsibility, however, was for the navigability of the approaches and waters of the Mersey, so that a vessel which was stranded for a tide or two and then re-floated undamaged would appear in his figures while another which suffered severe collision damage (possibly including death or serious injury among crew or passengers) would not appear if the stricken vessel never threatened to strand or sink. The reports do, though, list the number of times the lifeboat was called out, always giving the number of lives saved, and sometimes also the number of lives lost in accidents within the port (some of these figures are compiled in table 1).

Table 1
Statistical Summary of Accidents in the Port of Liverpool, 1879-1889

Date	Casualties	Total Loss/ Destroyed	Salvaged	Remaining	Lifeboat launches	Rescued	Killed
1879	43	43?	?	0?	17	19	?
1880	44	9	34	1	8	?	?
1881	62	16	39	7	15	18	?
1882	47	16	27	4	1	?	?
1883	47	14	26	7	18	18	?
1884	58	16	43	4	9	6	?
1885	41	13	27	1	14	7	?
1886			No Reports Issued				
1887			No Reports Issued				
1888	56	18	38	0	10	6	4
1889	70	8	59	3	14	22	5

Notes: Data supplied by the Water Bailiff. Casualty figures are given directly for some years; for other years it has been derived by subtracting the previous year's number of "wrecks remaining" from a total figure for "wrecks." Discrepancies arise in that the total given for wrecks remaining at the end of one year does not necessarily tally with the total of old wrecks given in the next. "Total Loss/Destroyed" is sometimes given as a total and sometimes is given separately; the figure for 1879 seems improbable. Figures for salvage are never given; after losses, blastings and the number remaining, the statement reads that "the rest were salvaged."

Source: "Water Bailiff's Returns," in *Annual Report of the Acting Conservator of the Mersey* (London, various years).

Before that, the nearest one can get is by deducing the number of accidents from the Pilotage records. Again, no number is directly stated in any surviving document, and the best source is the "Pilots' Character Book," a great register of the employment of pilots from 1788-1962.⁴ This records many a pilot being fined for insubordination or for "calling his master foul names" and one, who must have had a particularly inventive turn of phrase, was

actually sent to the House of Correction for a month for this offence. It also records the embarrassments of life as a pilot in the shape of fines, suspensions or dismissal for grounding vessels under their charge or being involved in collisions. Pilots had an evil reputation among seafarers for habitual drunkenness which is not confirmed by the record: there are occasional demotions, suspensions or dismissals for being drunk on duty, but they are not frequent.' On the other side of the coin are commendations for saving lives or vessels and records of pilots drowned in the pursuit of their duty. A complete analysis of the "Character Book" — which is not attempted here — might at first sight seem to offer a quantification of accidents, but would in fact not even come close, because the book reveals only those accidents where pilots were involved. These included all the largest vessels, but in terms of traffic on the river the most numerous movements were those by unpowered vessels — ferries, tugs, passenger tenders, "flats," barges, dredgers. Of seventy casualties reported in the Water Bailiff's return for 1873, only nineteen had a pilot on board. Nor were all collisions between moving vessels: standing still on the river (for which one obviously did not need a pilot) could be just as dangerous as moving around. This applied particularly in fog, but a dark winter's night could suffice to cause collisions with anchored vessels.' Finally, it provides virtually no help at all with mishaps within the docks themselves. A completely separate sequence of pilotage document, "Pilots' Reports of Collisions," begins in 1949 and gives brief details of every "incident," even if trivial.

The quantitative record is, therefore, substantial but fragmentary, and likely to remain so. Anecdotal evidence in the form of accounts of particular incidents is much stronger. The first principal source is the sequence known as "Wreck Files," which extend from 1881-1950 and cover about 235 incidents. Clearly these do not include all the incidents in the river and the docks — the Water Bailiff's reports for the 1880s show typically forty to fifty "casualties" per year — but those which are there are related in sufficient detail to give a reasonable picture of what happened and how the problems were solved. Under the MD&HB's Act of 1874 the Water Bailiff had draconian powers for dealing with obstructions to navigation: he was allowed to hold any cargo or other salvage which he might recover from stranded vessels and sell it to meet the costs of salvage or of disposing of the wreck of the vessel.' Only after all his costs had been met did any question of payment to the owners or their insurers arise. The "Wreck Files" do not provide the finer financial detail, but in a handful of cases the Marine Committee's "Wreck Volumes" survive, and these include minutely detailed accounts of expenses incurred. Destruction of the wreck of the *Hannah Landles*, lost on Great Burbo Bank in 1891, required the expenditure of £545 on explosives, but there is a generous deduction for the return of empty powder casks.'

The MD&HB Legal Files are an immense and varied collection of material within which are many files relating to accidents to ships.⁹ They tend, however, to be included for their legal interest or complexity rather than any more general application. Some of the most complex cases involved considerable potential liability for the Board, but were still more important in terms of precedent than the actual amounts in dispute. Prior to 1945, the number of files relating to accidents is small: after that there was obviously a change in

policy and a much larger number of accidents, particularly involving the Board's own vessels, is included. Backing up the Legal Files is a small collection of Printed Lawsuits involving the Board, some of which relate to accidents to shipping.

These sources are backed up with various other references in other sequences. The stranding of the *J.C. Boynton* on the sill of Princes Half-Tide appears as an "Unbound Worked-up Paper." There is also a bound "Worked-up Paper" (WUP) on wrecks, which provides transcripts of minutes of the Marine Committee on matters related to wrecks, but there is generally little information as to the nature of the accident or the technical problems of dealing with its consequences.¹⁰ Additional WUPs provide other "snapshots." For instance, WUP 120, on wrecks in the docks, relates mainly to vessels abandoned because the dues they owed exceeded their value, though there was a spasm round about 1900 of recording every sinking of a flat or barge anywhere within the docks, which occurred at the rate of several per month. Unfortunately the causes are not given, but wooden boats were prone to getting gaping seams between laden and unladen waterlines if they were left too long unladen in the sun, which unless observed and rectified caused them to sink the next time they were loaded. A similar absence of detail mars WUP 123, "Casualties, Pilotage (1891-1926)." With occasional exceptions like the total loss of a pilot boat, incidents are simply listed with no indication of what really happened or why. WUP 14/1, "Damage to Board's Property," is laden with trivia about youths carving their initials on things, but also includes some serious collisions with walls, bridges, floating stages and the Board's own vessels. The other side of the coin is WUP 8/1, "Claims upon the Board," which again has many trivia, but also includes such claims as that for the flat *Morning Star*, run down and sunk on 17 November 1888 by the Board's *Hopper No 1*.

The reader may by now be wondering whether there are not nation-wide records which report accidents according to a single logical system, enabling comparison of like with like and making this messing around with fragmented local sources unnecessary. The answer is that there are, but they do not. Under sections 291 and 326 of the Merchant Shipping Act 1854, captains or owners of vessels were required to report to the Board of Trade any "incident" — collision, stranding etc. — where there was loss of life, serious personal injury or material damage to the vessel affecting its seaworthiness or its "efficiency either in her hull or in any part of her machinery," and these reports spawned a long series of annual Returns to Parliament of losses to shipping." The level of detail required in the reports enabled a fair degree of analysis in the Returns, and they isolate incidents in different ports. Unfortunately the Act was badly drafted: section 291 refers only to steamships, while 326 refers to ships. Even the term "ship" is not defined; serious injury is not defined and neither is efficiency or seaworthiness. Under this Act neither strandings nor founderings needed to be reported if the vessel was floated off or raised without serious injury or damage. This gap was closed by the 1876 Merchant Shipping Act, but obviously wrong figures continued to be produced: in the 1890s, for example, founderings nationwide supposedly peaked at thirteen in 1893-1894, when we know that Liverpool alone would manage that many in an only moderately bad *month*.

Of the thousands of casualties which occurred every year, we find that in the 1890s between about six percent and eleven percent of all total losses (worldwide) of British registered vessels occurred within the boundaries of a port. In 1900, a surprising thirty-three percent of notifiable accidents in British waters were in port. As one would expect, prospects of rescue in port were fairly good, with the result that those accidents represented only about a quarter of one percent of total fatalities. The number of accidents at different ports is roughly in proportion to the number of vessels using them: the Mersey comes second only to the Thames, and while the Mersey has more total losses and more strandings, the Thames records over four times as many collisions as the Mersey.¹² But few of the accidents merited a formal enquiry and the tabulated information gives us a very two-dimensional picture. The local records, for all their failings, do provide the detail, the human face of what was happening, and the variety of hazards encountered. It is, therefore, on those that the rest of this paper is based.

The dangers of the anecdotal sources are considerable. It is not easy to judge how typical any particular incident was, and in some cases it is difficult to tell why records were kept of one and not another. Some of the sources make it difficult to judge the true cause of an accident: when a pilot was recorded in the "Character Book" as having been responsible for a grounding, extenuating circumstances such as a strong onshore wind are rarely mentioned. The causes of accidents can be problematical in other respects: in one case given below it seems that the cause was "adjusted" for political reasons and in others we may view the official line with some suspicion. There were frequently large issues or large sums at stake and it would be naive to expect a consistently high degree of veracity.

Although accidents in port generally lack the drama of accidents at sea, they often betray dramatic characteristics of one kind or another. We can find examples of unscrupulousness, of crass stupidity or recklessness, of irony — and invitations to indulge in gallows humour. These are terrible temptations to the author, yet the risk seems worth taking in order to investigate whether any pattern can be found or any tentative general rules propounded in this under-studied area.

Always at Risk: Examples of Accidents at Various Stages in the Use of the Port

Every aspect of entering, using and leaving the port presented its own distinctive hazards to shipping, and this section follows the main dangers in sequence, "inward-bound" from the approaches to the channels to the quaysides.

On 7 December 1883, the inward-bound Inman liner *City of Brussels* became something of a *cause célèbre* by being sunk in a collision off the Mersey Bar.¹³ Critics of the MD&HB pounced on the loss of this large and "valuable" vessel as proof of the terrible consequences of the Board's alleged apathy in not removing the Liverpool Bar.¹⁴ In fact, the cause of the accident lay elsewhere. *City of Brussels* had encountered fog off Great Orme's Head which got thicker closer to Liverpool, causing successive reductions in speed. At 0530, the time of the collision, its engines were stopped, its head was stemming the tide

(i.e., facing back out to sea) and it was drifting stern first towards the Bar at about one or one-and-one-half knots. It was not waiting for water, as alleged, but was waiting for the fog to lift. *Kirby Hall*, inward bound from Glasgow, was groping slowly searching unsuccessfully for the North West Lightship, whose fog horn had been heard, concealed in the fog about two miles away. Here is one of the generic causes of accidents in port: when visibility is poor the sheer concentration of ships coming and going makes a port an inherently more dangerous place than the middle of the Atlantic. Even the vessels of the White Star Line rarely collided with each other in the open sea.¹⁵ The average daily traffic in and out of Liverpool that year was 128 vessels. It was extremely fortunate that in this case the passenger vessel was an ageing greyhound trading mainly in emigrants, so that eastward-bound in December it was carrying only sixty-six passengers, all but two of whom were rescued along with ninety-three of the 101 crew, by the *Kirby Hall*. There was some doubt as to whether the wreck was technically the responsibility of the MD&HB, but the Marine Surveyor had actually blasted its masts down the day after it sank, without the owners' consent and before any legal advice had been taken. (This was because he correctly estimated that the rest of the vessel lay deep enough simply to be left there, and it remains to this day a popular attraction for local divers.)¹⁶

A little closer to journey's end lay the dredged channels. In conditions of good visibility and calm weather these were easy to navigate: they were well buoyed and lit and the bend in the main channel was easily steered as a two-bearing course. On a good tide and in calm weather there was plenty of latitude for all but the deepest vessels to stray a little over the banks, and indeed this was a common and deliberate practice among pilots of small vessels, in order to leave the deepest water for the ships which needed it most. The evening of the three-masted ship *Hannah Landles'* departure, 7 December 1891, was not like that." A severe gale was whipping up what were by Liverpool Bay standards mountainous seas and so its pilot and tug-master were keeping to the channel. Despite their best efforts, the wind and sea were causing it to drift towards the Great Burbo Bank, so the starboard anchor was let go, but the cable parted, and the port anchor proved no more successful. The vessel drifted helplessly over the Bank and was dropped onto it from a considerable height by the waves. It stuck, the towline parted and the sea broke clear over the craft. Exceptional skill and courage on the part of the crews of the tug and of the New Brighton and Liverpool life boats prevented any loss of life, but the ship was stranded. The following day three tugs attempted to tow it off, but the weather was appalling and they failed. By the following day it was "burying up in the sand" and would obviously become a total loss. The hazards may be judged from the fact that of the seventy casualties in 1873, twenty-six involved accidents in or groundings adjacent to the channels. Such accidents were more likely than others to produce fatalities: of the four vessels lost with all hands that year, all were sailing vessels lost on the banks.

Legal complications led to the preservation of the paperwork of various other vessels which failed to remain in the Channels. On 27 February 1884 *Geofredo* had a perfectly commonplace accident by getting stranded on the edge of the Crosby Channel.¹⁸

Its place in history was assured by the owners leaving their own "salvage crew" aboard, who repelled the Water Bailiff's men by force and salvaged, *inter alia* eighty-nine boxes of German sausages, contrary to Clause 11 of the 1874 Act. A more marginal case was that of *Cascapedeia* (4 November 1896) whose owners salvaged several hundred live cattle and sheep inward bound from Argentina. The ship's back was broken and immediate action was required on humanitarian as well as financial grounds, but when the animals were landed at Birkenhead they were arrested by the Water Bailiff.

Among all the things the armchair mariner would imagine it was difficult to collide with, the lightships marking the channels must rank high: they were not exactly inconspicuous. When, therefore, the *Mediana* ran down and sank the lightship *Comet* on 23 April 1898 one is tempted to assume a measure of incompetence.¹⁹ *Mediana's* owners admitted liability, but claimed that they should not be expected to pay a share of the overheads incurred by the Board in maintaining a spare lightship ready to be placed on station in just such a circumstance as this. In the course of the legal wranglings over this subsidiary issue (which eventually went to the House of Lords) Henry Belam, Marine Surveyor to the Board, gave evidence as to the need for the spare lightship. In the previous twenty-five years, eleven lightships had been sunk or so badly damaged as to require the deployment of the "spare" and a further twelve had suffered minor collision damage which could be repaired on station. Colliding with a lightship, so far from being the mark of a quite peculiar degree of incompetence, was on average very nearly an annual event.

The further into the river one went, the worse the congestion — and hence the risk of collision — became. Because it was common to find a dozen or so large vessels anchored in the river neaped,²⁰ waiting for a berth or coaling from barges and floating elevators, the amount of space for swinging round towards a dock entrance was limited. A little further upriver were four old sailing warships used as training vessels and above those were the floating powder magazines. It was while dodging such encumbrances that what seems to have been a pretty typical accident occurred. On 28 June 1900 *Orpheus* was turning towards the Brunswick Dock entrance "opposite Tranmere," collided with *Visnaes* and sank with the loss of six lives. Its cargo included dense goods like tin plate and blocks, but after being substantially lightened it was raised, towed to Canning Graving Docks and repaired.²¹

This accident sounds so eminently avoidable that one is tempted to assume a high degree of stupidity or recklessness aboard one or both vessels. Such a view fails to recognise the density of traffic and the problems it brought. The daily average number of ships entering and leaving the port that year was 145, but the total number of movements through dock entrances was much greater. There were the frequent comings and goings of tugs and of the extensive floating plant — dredgers, buoy tenders, salvage tenders, floating cranes, etc. of the MD&HB.²² There was a large forwarding trade between docks by assorted boats and barges, particularly in bulk grain but also in general goods being forwarded from railway depots on both sides of the river; there were boats to and from the canal docks at Ellesmere Port, Runcorn, Widnes and other small ports upriver.²³ The greatest mistake of all is to assume that when a ship visited the port it came in, did its business and went out again,

making two passages of the same dock entrance. The picture is far more complicated than that: ships hardly ever loaded at the same berth at which they had discharged and by no means necessarily in the same dock. There were thirty-two graving docks in all, which were almost always busy (partly in repairing collision damage!) and all the ships which used them necessarily did so between discharging and loading. Then there were the vessels which went to an obsolescent berth to wait for a cargo, and returned to a loading berth when they found one.²⁴ The true total of movements through dock entrances is not presently calculable but is not less than double the apparent number.²⁵ The congestion was made worse by seasonality, in that more of the total shipping movements of the year occurred in summer than winter. In 1873, for example, the Water Bailiff's return shows monthly totals of inward vessels in the upper seventeen hundreds for January, November and December and over 2000, peaking at 2336 in July, for the months April to August. This seasonality is probably not as important as it may seem for two reasons. First, the figures may not be accurate: the Water Bailiff pointed out that they were compiled by observation from the light vessels and "it is probable that in the night vessels may pass without being seen." Naturally there was more chance of vessels passing unseen in the longer nights and often poor visibility of winter than in the summer. Second, it tells us nothing about seasonality of the "domestic" traffic which never went out as far as the lightships and was therefore never counted.

To this congestion we have to add the problems of the Mersey's rapid tides and sometimes ferocious winds, which could make the simplest manoeuvre difficult or even hazardous. This was reflected in the high casualty rate of sailing vessels as compared with steamers — in 1873 just ten out of seventy casualties were steamers — and more specifically of smaller sailing vessels. Only eight of the sixty sail casualties were over 1000 tons. In winter, the absence of wind often heralded the arrival of appalling coal-smoke smogs which reduced visibility literally to a handful of yards, often lifting for just a few hours around midday, which was fine if high water occurred before the smog came down again. Sometimes they did not lift at all for days. Next we must add the effect of the Mersey's large tidal range: all those vessel movements had to be crammed into a couple of hours either side of high water. It begins to look as though we should be questioning not why so many ships collided or grounded, but so few.

There are some accidents where we may reasonably assume stupidity or recklessness came into play. One such occurred at 2000 hrs. on 29 December 1900, when *Bessborough* emerged from Salisbury Dock.²⁶ Out in the river, *Ailsawald* had left Langton Graving Docks and was under tow, with no power of its own, to Clover's dock in Birkenhead. It was being towed stern first, with a tug facing the normal way at its stern and a tug facing in the opposite direction to steady its bow. The view from Salisbury Entrance was, therefore, of one port navigation light closely followed by two starboard ones travelling together at the same slow speed. All three vessels were carrying the proper masthead lights. It was dark, but this combination of lights should have suggested something unusual was going on. But not to the captain of *Bessborough*: he came out, increased speed and headed for sea, colliding heavily with (and disabling) the after tug. On

3 July 1875 the flat *Antioch* was minding its own business when it was struck and sunk by a vessel launched into its path from Royden's shipyard in an almost exact repetition of the sinking of the flat *Industry* on 23 October 1873.²⁷

Such things were not one-off acts of near-criminal idiocy. The "Pilot's Character Book" confirms this by revealing individual pilots involved in repeated incidents and still living to collect their pensions. John Fieldhouse, for example, joined the service in 1848 and in 1851 grounded *Eagle* and also *Joseph Harrison* in 1855. In 1869, *Globe* was lying at anchor when he ran *Ambrose* into it. Any misgivings the captain of *Ambrose* may have felt in having Fieldhouse pilot him again in 1872 were fully justified when he missed the Canning Entrance, stuck the vessel on Pluckington Bank and then when it floated on the rising tide ran it stem-on into the river wall.²⁸

There is one document which gives us a tantalising glimpse of at least two possible additional causes of accidents in the river. In 1863, the Marine Committee of the MD&HB carried out an extensive enquiry as to whether it was necessary to introduce a River Police. The Committee followed the "question and answer" model of a Parliamentary Enquiry, and the evidence given was minuted and published.²⁹ The particular abuse which worried the Committee was the prevalence of crimps in the river. These people operated a highly efficient integrated service geared to the fleecing of "Poor Mercantile Jack," most of whose sordid detail is more amusing than edifying. The initial stages of the process may be relevant: using hired boats, they boarded ships in the river before they docked, plying sailors with drink and prostitutes (usually posing as orange-sellers and the like) with a view to taking them ashore where the serious rip-offs would presumably begin. The next stage, if the ship was not docking immediately, was to charge the sailor for providing a "stand-in" so he could get to the delights of the "lodging house" the sooner. So, if the evidence given is to be believed, some members of the crews of ships in the river were very drunk indeed while others may have had their minds fixed on lower things. Other vessels were partly crewed with stand-in men of uncertain skill and status. Unfortunately, we lack any similar document for a later period to enable comparisons to be made.

Surviving the hazards of the channels and the river still did not guarantee safety, as Captain Penhallow of *Sierra Nevada* was to discover.³⁰ He arrived in the river with a cargo of guano on 12 April 1855 and had to wait until 16 April for a berth and sufficient depth of water to reach it. His tug took him into Sandon [tidal] basin and slipped the tow, leaving him sufficient way to drift to the Wellington Half-Tide entrance beyond, where his warp was landed in the usual manner. The crew began to warp the vessel in, but when the bow was well past the sill of the entrance it struck something under water and to the port side which caused it to sheer away to starboard, striking the pier and coming to rest in a position from which it could be moved neither forward or back. The tide was nearly full, but still rising a little, and it appeared that the stern of the vessel could be moved from side to side but the bow was stuck fast. The rest of the story unfolds with sad inevitability: the tide turned and fell, stranding the vessel on the sill and breaking its back. Some of the cargo was lost and the rest was severely water-damaged. The next fortnight was spent in shovelling out

some 2400 tons (dry weight) of guano, after which it was possible to raise the vessel and float it into graving dock, where it was found to be so badly damaged that had it not been both unusually strongly constructed and brand new, it would not have been worth repairing.

What followed is peripheral to present purposes but perhaps worthy of passing mention as an additional hazard to shipping. This case dragged from one court to another and eventually to the House of Lords, over the period of eleven years. A brief examination of over a thousand pages of the legal writer's art suggests that there *was* a mud bar there as alleged, that the Dock Trustees took action immediately after the accident to remove it and to deny it had ever existed, and that several of their officers both committed perjury and conspired to cause other, humbler, employees to do likewise. Captain Penhallow and Gibbs and partners (owners of the cargo) perjured themselves as to the extent and value of the damaged cargo and the expense of salvaging it. The Lords found against what was by this time the MD&HB, awarding damages and costs to both the plaintiffs in the sum of £23,779.

The *Sierra Nevada* accident naturally caused Wellington Half-Tide to dry out, with possible consequential damage to other craft. There is no record of such damage on this occasion, but incidents more than half a century apart serve to show that one could not entirely rely on the water remaining where it was meant to be. In October 1863, the Dock Engineer's team was testing out the silt sluicing system of the Great Low Water Basin, Birkenhead. This gargantuan installation had twenty culverts with a total sectional area of some eight hundred square feet. When opened, they produced a current running the full two-mile length of the Great Float which was sufficient to pull two vessels from their (allegedly inadequate) moorings and send them drifting down to collide with the Duke Street swing bridge.³¹ Later came the sad tale of the *Pirate*, a small steam packet tied up in Birkenhead when the coaster *Countess* collided with and burst open the gates of the Alfred entrance. The result was likened to a cataract, and it swept *Pirate* and sixteen other small vessels from their moorings and into the river, where several of them sank. It is quite astonishing that there were no fatalities.³²

It was possible to have irritating minor accidents at any stage in the repeated processes of moving ships around within the dock system, but these were mostly settled out of court in a reasonably amiable manner and therefore leave us little or no record. Such was not the case with *Zeta*, which had discharged in Stanley and was under its own power, passing through Collingwood and Salisbury into Nelson to load. The Salisbury/Nelson passage is in an exposed position close to the river wall and there was a fairly strong wind from the south west. Both docks are rather small, and the passage was at 90° to its route through Salisbury: it could not go fast enough to retain steerage, and the correct procedure was to stop in the passage and put ropes ashore. This was not done, and in a scene of hopeless confusion in which the Captain, the Mate and the Dockmaster gave conflicting instructions, the engines were put astern to bring the ship to a halt, and then ahead to prevent a collision with the wall. But the wind had taken charge, and the propellor struck the corner of the wall, breaking off two blades. The reason we know about this is that for the sake of a miserable £220, *Zeta's* owners appealed their way to the House of Lords, where they lost.

Manoeuvring in a confined space in a wind was very much a part of everyday life, and one which had its hazards.

As in the river, staying still had its dangers too: even if one escaped collision while tied up (which was not guaranteed), there was always the risk of fire. In 1883, The Harbourmaster's Department ordered a twin screw tug, eventually named *Hodgson*, primarily for shunting small vessels around within the docks, but also equipped with a powerful fire/salvage pump. On 29 November 1883, when the vessel had not even been officially signed off from the builders as completed, it extinguished fires on *Sportsman* and *Deepdale*. It is not recorded on which vessel the fires started.³³ The following autumn saw *Hodgson* particularly busy, dealing with major fires on 18 October (*Nevada*), 28 November (*Caspian*) and 12 December (*Iberian*). Occasionally fires got completely out of control, as in the case of *Thomas M Reed*, burned in Bramley-Moore, the wreck and cargo of which were "abandoned to the Board" to meet firefighting and salvage costs.³⁴ Part of the problem was, once again, congestion, in that if a fire broke out on a quay or in a shed it could be difficult to move any vessels alongside to a safe distance quickly enough to prevent the fire spreading to them, or from one of them to another. It could also be difficult to get fire pumps, whether ashore or afloat, to the scene.

Even taking refuge within another set of gates, in graving dock, was no guarantee of safety. In the collection of Merseyside Maritime Museum is a painting depicting the misfortune of the barque *Baboo*, which was being floated off Canning No. 2 Graving Dock on 22 February 1841. Insufficiently ballasted, the vessel floated suddenly as the water rose and "fell on her [port] beam ends." Such ballast as there was naturally fell to the port side, now the bottom, fixing it there firmly. No one was injured, and as the ship sailed for Bombay on 3 April we may assume that the damage was reasonably slight.³⁵

This was simple stuff indeed compared with the case of SS *Fulda*, which was to be placed on Birkenhead No. 2 Graving Dock on 3 February 1898. As the dock was emptied and the steamer's weight came onto the graving blocks, one or two yielded, setting off a progressive collapse of the rest and leaving the ship seriously damaged on the bottom of the dock. The owners blamed the Board and the Board blamed the contractors.³⁶ The case against the Board seemed convincing in that the blocks were of mixed types, of poor and obsolete design and in poor condition. Worse still, the damaged ones had been marked for replacement by a Board employee, but nothing had been done. The Board was found not liable on the grounds that the same blocks had recently been used for similar ships and that *Fulda's* sister, *Werra*, had used similar blocks in the adjacent dock without problems.³⁷ The accident was blamed on the failure of the contractors to place additional blocks necessitated by the vessel's shape and size and the fact that it still contained a small amount of cargo.

Here is another identifiable characteristic of accidents in Liverpool: as in the case of the "launching accidents" above, they were commonly not merely avoidable but eminently foreseeable because they had happened before. Had the lawyers for *Fulda's* owners known that on 10 July 1894 the Board's own new dredger *Brancker* had been seriously damaged in a very similar incident at Herculaneum No. 3 the outcome in court

might have been different.³⁸ The horrifying accident at Alfred Entrance in 1920, mentioned above, was merely a repetition on a larger scale of what happened at Morpeth Entrance on 17 October 1888, when *Blanch Rock* burst the gates open. Frequently one finds that an account of an accident includes passing mention of a whole group of other similar ones whose occurrence was as yet unsuspected, as in the case of the lightship *Comet* above.

The Mersey Ferries (which during last century were operated by several different undertakings), have generally been perceived as having a good safety record because in relation to their considerable numbers and constant coming and going in risky conditions, very few people indeed were killed. This perception, while broadly correct, needs slight modification in two respects: the boats had many minor collisions and when a serious collision involving loss of life occurred, the manner of its occurrence had been foreseen for some twenty years: it was truly an accident waiting to happen. The issue was the anchoring of large vessels in what became known as the "Ferry Track," which could cause acute difficulties for the ferries in fog or when the vessels rode to their anchors when the tide turned.³⁹ Fog was a severe enough hazard in its own right: one Birkenhead ferry suffered the freak accident of having both its two compasses "hang" during a fog, and just as the captain was slowing down, expecting to hear the fog bell of the *George's Stage*, he collided stem on with something immovable. So bad was the visibility and his disorientation that he literally had to investigate what it was: it proved to be the wall of Morpeth Dock, on the same side of the river he thought he had left astern.

Ferries were very robustly made for their size, and it was said of the Wallasey boats that they frequently completed a journey with one of their watertight compartments flooded: this was why a spare boat was kept in steam at all times, to maintain the service as the damaged one limped off for repairs. The Committee of Enquiry heard strings of examples of boats damaged, some so severely that they sank shortly afterwards. When we consider that these vessels carried up to 1500 or 1600 people at busy times and complied with the statutory requirement to carry a lifeboat — note singular — it is little short of miraculous that there was never a major disaster. In 1879, the inevitable occurred: the ferry *Gem* collided with the Brocklebank ship *Bowfell*, anchored in the ferry track in fog, suffering heavy damage but fortunately the loss of only twenty-five passengers. The accident was blamed on *Gem's* skipper for going too fast in the fog, but given the difficulty of maintaining steerage in the fast-moving waters of the Mersey, the word "whitewash" crosses the author's mind. Ralph Brocklebank was one of the inner circle of the Dock Board who had resolutely opposed any suggestions that anchoring in the ferry path was dangerous. It was, on the other hand, exactly what had been forecast by some of the "out-crowd" on the Board, notably Harold Littledale and Samuel Stitt, both of whom were regular ferry commuters."

New Technology

It is easy to imagine that accidents like those could be almost entirely eliminated by new technology, especially ship-to-shore radio and radar. A rapid glimpse through the records

for the period 1950-1960, when the ferries had been radar equipped and there was also a Port Radar Station, shows that while the situation was improved, the improvement was much less than we might expect. From 1949, we have the complete run of *Pilots' Reports* which mention every incident involving damage to Pilot Boats and every collision, grounding or loss of anchor by any vessel with a Pilot aboard. The number of occurrences is large, but the damage they describe is usually trifling. For December 1949, for example, there are twelve reports, relating one minor grounding and eleven assorted bumps and grinds at dock entrances. The following month shows two minor collisions and ten encounters with masonry. The summer months yield only a couple of incidents per month, and it seems that almost all the problems were caused by awkward weather conditions, whence the seasonal variations. So far the new technology seems to have been working.

Reference to the index to the MD&HB Legal Files shows a different picture. Within the decade there were forty-one collisions or groundings of sufficient seriousness to generate a file, nearly all of these doing so because one of the vessels involved belonged to the Board. It was obviously still dangerous to stand still in the river and its approaches, for between 1950 and 1955 there were six accidents involving the Board's small fleet of hopper barges. Four skippers collided with the 10,000-ton (capacity) dredger *Leviathan*, which had been heavily damaged in collision with *Franz Clasen* in 1947. In 1956 the tug *Moor Cock* upheld traditional standards by colliding with the inner gates of Alfred Entrance, but failed to burst them completely. The Reports of the Acting Conservator show an encouraging downward trend in "casualties," but most years there were over twenty, and in 1954, the worst year of the decade, there were forty-one.

What is most disturbing is that, as for the earlier period, references to one accident lead on to mentions of others. One of the vessels which collided with *Leviathan* was the luxury ferry/inshore cruise vessel *Royal Iris*. That accident was reported in the *Liverpool Daily Post* 23 November 1956 and, as a footnote to the report, it is mentioned that *Royal Iris* had been involved in two previous collisions. The second, in 1955, was with a hopper barge; the first, however, is one which takes us back to wondering how these things could happen: what *Royal Iris* collided with in 1951 was nothing less than HMS *King George V*. There were bigger battleships, but at 645 feet long and 38,000 tons it was pretty conspicuous in the river while its fifteen-inch armour belt made it effectively an immovable object with which to collide: forty-nine of *Royal Iris'* passengers and crew were injured.

Conclusion

This has been a review of the sources, conducted with a view to establishing an approximate picture of shipping safety within the port.⁴¹ It reveals that while the major incidents are easy to research, the minor ones are extremely numerous and somewhat elusive. Limited quantification would be possible in some fields, but figures from different sources do not often agree.

The anecdotal approach adopted here serves at first to suggest that safety within the port was not treated very seriously and that some at least of those navigating the river might quite properly have been barred from the rowing boats on Sefton Park Lake.⁴² In a handful of cases both propositions may be true, but two common strands emerge which play a part in most of the accidents mentioned. The first is bad weather, of which perhaps the worst was fog, though gales also took their toll. Since the demise of steamships, the imposition of smoke control orders in residential areas and the almost total disappearance of smoky industrial chimneys the incidence and duration of fog are very much reduced. The other typical weather problem was that of vessels getting caught by wind or tide and carried in a direction or at a speed completely undesired by the skipper, and here changing technology probably has played an important part. As we have seen, sailing casualties were higher than steam. Late last century, many of the small steamships using the Mersey were so under-powered that they could not defy the rapid tides, but had to utilise them, leaving little means of avoiding a potential grounding or collision if anything, including exact timing, went wrong.⁴³ Not only are modern vessels sufficiently powerful to remain under control in adverse conditions, but the proportion of them fitted with such aids to manoeuvring as twin screws and bow-thrusters is much higher. Vessels whose manoeuvring is poor, such as oil tankers, are served by tugs of much higher capabilities than in the past.

The real difference, it seems, is in the degree of congestion in the river and its approach channels. As explained above, the number of vessels using the river is incalculable, but what is absolutely clear is that the port now handles more tonnage than it did a century ago in about thirty-nine percent of the number of vessels. The congestion a century or so ago is almost unimaginable now: there were, for example, ten ferry services to Liverpool, several of them sailing on a fifteen-minute frequency. Coaling a large passenger liner in the river required up to fifty boatloads of coal inside twelve hours — and there were several lines offering weekly sailings. By the 1950s much of this traffic had gone, but it was still routine for an entrance favoured by the coasting trade, such as Salisbury, to disgorge a dozen or so craft on each tide. The number of dues-paying vessels using the port peaked in 1905 at 26,035 and by 1955 this had fallen only to 17,587. As late as 1964, on the eve of the shipping revolution, there were still 16,878. This has now fallen

to 7602.⁴⁴

On the very partial evidence of the Water Bailiff's returns, it seems that these two main factors evened each other out, at least among seagoing vessels. The number of casualties did not vary significantly between summer and winter, though their incidence did because there were fewer ships around in the winter. It is also noticeable that winter casualties were more likely to be by grounding or stranding, while summer ones were more likely to be by collision.

It is not just that there are fewer vessels around to collide with each other. Congestion is produced when a surfeit of vessels want to use the same space at the same time, and the higher operational costs of modern vessels, coupled with more effective means of scheduling them and better dock engineering to get them in and out, mean that it is

exceptional for vessels to have to anchor in the river waiting for water or for a berth. They simply come and go more efficiently, and the recent revival in traffic in the port has been in part the result of the Dock Company being able to promise owners an empty berth waiting for their vessel. That, in turn, has resulted from radical improvements in rates of discharge and loading, and if technology has played a part in improving shipping safety in port, it may be that this particular branch has made a larger contribution than hitherto recognised.

It has long been realised that some of the most evocative pictures of old-style ports, showing milling throngs of people, mountains of goods piled on quays, forests of masts and interminable queues of road and rail vehicles, are actually illustrative of highly inefficient ways of doing things. It may be that there was another price to be paid, in bent metal, lost or damaged cargoes and occasionally human life as well, and that we may consider general disorganisation as a final and unifying contributory factor to the mayhem revealed above.

NOTES

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1. D.M. Williams, "Mid-Victorian Attitudes to Seamen and Maritime Reform: The Society for Improving the Condition of Merchant Seamen, 1867," *International Journal of Maritime History*, III (1991), 101-126. The main parliamentary enquiries were two Select Committees on Causes of Shipwrecks (Great Britain, Parliament, *Parliamentary Papers [BPP]*, 1836 [567], XVII, 373 and *BPP*, 1843 [581], IX, 669) and the Royal Commission on Alleged Unseaworthiness of British-Registered Ships (*BPP*, 1874 [c1027, c1027II, and c1027III], XXXIV, I, 899 and 945). There were also specific enquiries into topics such as timber and grain ships and boiler explosions.

2. For the cult of the *Titanic*, see M. McCaughan, "The *Titanic* as a Cultural Icon," in A. Jarvis, R. Knight and M. Stammers (eds.), *Proceedings of the Ninth International Congress of Maritime Museums* (Liverpool, 1997), 69-79.

3. This arose from the so-called "Sailor's Psalm" (107), which in addition to the famous verse "They that go down to the sea in ships" also contains "bringeth them unto the haven where they would be," which may not have been intended allegorically but has certainly been thus used.

4. Merseyside Maritime Museum (MMM), Maritime Archives and Library (MAL), Mersey Docks and Harbour Board Collection (MD&HBC), PIL/2 (1877-1864) and PIL/3 (1865-1919). For a summary of the major contents of this collection, see J.G. Read and M.K. Stammers (eds.), *Guide to the Records of the Merseyside Maritime Museum, Volume I* (St. John's, 1995). Unless otherwise stipulated, all unpublished material cited in this paper comes from MMM, MAL, MD&HBC.

5. It should be explained that a pilot's pay was a share of the pilotage charges that were levied according to the draft of the vessel. Less experienced pilots were restricted as to draft, so demoting a senior pilot to, say, "not exceeding [a] 14 ft." draft was an effective disciplinary measure that affected both status and income.

6. This was long a contentious issue within the Board, and is considered in more detail below.

7. Great Britain, 37 & 38 Victoria, cap. 30, "An Act for Varying and Making Other Provisions as to Certain of the Rates and Dues Leviable by the Mersey Docks & Harbour Board; and for Other Purposes," 1874.
8. Wreck Volume, *Hannah Landles*. It might be expected by this date that high explosives would be the mainstay of marine demolition, and some tonite was indeed used, but large charges — up to 300 pounds each — of old-fashioned blasting powder were the norm; *Report of the Acting Conservator* (London, 1881). For some years the quantity used is reported, e.g., seventy-two tons in 1873.
9. The post-1939 files are still with Mersey Docks and Harbour Co.
10. Unworked2up Paper (UWUP) J7; and Worked-up Paper (WUP) 89.
11. The sequence begins with Abstract Returns of Wrecks and Casualties on the Coasts of the United Kingdom, *BPP*, 1856 (2024), LI, 399. While the format changed over time, in essence they form an unbroken record to the end of the century.
12. Naturally, the Board of Trade's (BT) figures disagree wildly with the local ones: the BT gives 220 casualties in the Mersey in 1900, while the Water Bailiff's report gives 107.
13. Wreck File, *City of Brussels*; Board of Trade Formal Investigation No. 1704 *City of Brussels and Kirby Hall*; [Lloyds Dictionary of Disasters gives a slightly different account]; and C. Michael, *The Wrecks of Liverpool Bay* (Liverpool, 1994). The Liverpool Bar is a sandy ridge about fifteen miles from the Pier Head; the channels within it were fairly complex. For further details see A. Jarvis, "Beyond the River Wall: The Attack on the Mersey Bar 1890-1923," in A. Jarvis (ed.), *Port and Harbour Engineering* (Aldershot, 1997), 3232338.
14. The scare quotes are used because it was in fact obsolescent.
15. With White Star nothing was impossible. In 1887, *Celtic* and *Britannic* collided some 350 miles east of Sandy Hook; J.P. Eaton and C.A. Haas, *Falling Star* (London, 1989), 40-41. The sinking of *Mary Hough* in Crosby Channel gives an impression of the congestion: despite the fog, which was a major cause of the accidents, the craft avoided two vessels before colliding with a third; leaking badly, its captain headed for Formby shore, avoiding three more vessels before being run down and sunk by a fourth. The first collision was partly caused by excessive speed on the wrong side of the channel, but the remarkable thing is that even in the fog it was in visual contact with seven other vessels in a very short time. BT Formal Investigation No. 1056, *Mary Hough, Castilian and Africa*.
16. Michael, *Wrecks of Liverpool Bay*.
17. The choice here of a vessel which was outward2 rather than inward-bound is made simply because of the wealth of detail in the surviving "Wreck Volume" for the vessel.
18. For *Geofredo* and *Casapedeia*, see "Wreck Files."
19. "Bound Lawsuits," No. 15.
20. "Getting neaped" was a common problem for larger vessels and involved waiting for the return of the spring tides to provide sufficient water on an entrance sill. For the anchored-vessels problem generally, see *Report of the Special Committee as to the Navigating, Mooring and Anchoring of Vessels in the River* (Liverpool, 1876).
21. "Wreck File," *Orpheus*.
22. In 1900, for example, *Lloyds Register* lists forty-six vessels owned by MD&HB.
23. The statement about railway depots sounds incredible, but railway companies claimed (truth2 fully or not) that it was cheaper to transfer by boat than by the dock railway. See the evidence of Sir Edward Watkin before the Select Committee of the House of Commons on the 1873 Liverpool Docks Bill, qq. 2704-2707. Of course, he may only have been angling for a cut in the charges for use of the Dock Railway.

24. One which was spacious but insufficiently deep for fully-laden modern vessels.
25. A major research programme reconciling samples from the Bills of Entry and the Dock Registers is at the feasibility study stage (under the supervision of Graeme Milne) at the time of writing.
26. Legal, M17, Secretary of the Liverpool Steam Tug Owners Association to Miles Kirk Burton [General Manager & Secretary of MD&HB], 8 February 1900.
27. Water Bailiff's returns, 1873 and 1875.
28. Opening the "Character Book" at random will readily produce such examples. It has an alphabetical index of pilots' names for those wishing to verify the misdeeds mentioned here.
29. *Evidence taken before The Marine Committee under an Appointment of the Board, of 2nd April, 1863, To Enquire into the Necessity for the Establishment of a River Police, and Report Thereon to the Board* (Liverpool, 1863).
30. Legal H32, H33 and H34.
31. J. Ellacott, "Description of the Low Water Basin at Birkenhead," *Minutes of the Proceedings of the Institution of Civil Engineers*, XVIII (1868-1869), 518-536.
32. "Newscuttings," III/3. For this and other misfortunes of Mersey Flats and similar craft see also M.K. Stammers, *Mersey Flats and Flatmen* (Lavenham, 1993), chapter 10.
33. For this and following fires, see WUP 108. (Entries in chronological order).
34. WUP 28/1.
35. The painting is MMM Accession No. LI.1987.248, and the accident is described in *Gore's General Advertiser*, 25 February 1841. Its eventual departure is mentioned in *ibid.*, 8 April 1841. My thanks to Tony Tibbles for these references.
36. "Bound Lawsuits" No. 16.
37. This suggests adherence to the so-called "three-day theory" of engineering: "It hasn't fallen down today and it didn't fall down yesterday, therefore it won't fall down tomorrow," which is not generally held to represent best practice.
38. *Journal of Commerce*, 10 July 1894.
39. *Report of the Special Committee*, 1876.
40. This issue is discussed in more detail in A. Jarvis, "Harold Littledale: The Man with a Mission" in H.M Hignett (ed.), *A Second Merseyside Maritime History* (Liverpool, 1991), 52-16.
41. There is undoubtedly more to be found: the naphtha vapour explosion on the smack *Thomas* on 17 September 1877, in which the captain was killed and two others severely injured, does not appear in the MD&HB archives. What was left of the vessel burned to the waterline; it was reported that the survivors only escaped because the force of the explosion propelled them a considerable distance. *The Times*, 18 and 21 September 1877.
42. This was a traditional taunt levelled by Liverpool seafarers at the denizens of shipping company offices.
43. It was common for small coastal steamers to have top speeds of under ten knots in still water. The Mersey tides could occasionally reach seven knots (five was common), leaving little extra for an emergency manoeuvre or overcoming an unhelpful wind. Outward-bound on the ebb, there was little relative flow over the rudder, resulting in partial loss of steerage, and ringing full astern for an "emergency stop" did not have much effect either.
44. These figures were supplied by Captain B.G. McShane, Marine Operations Manager, Mersey Docks and Harbour Company. In order to provide comparability, tugs, barges and the like have been subtracted from the gross figure of 8435 vessels entering in the last year; things like the comings and goings of *Mersey Mammoth*, the company's floating crane, were also excluded.